

D. Srivastava

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1653

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P#21

TECH CENTER

P-5

ENTERED

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/08/962,560C  
DATE: 11/16/2000  
TIME: 16:31:13

Input Set : A:\10976.asc  
Output Set: N:\CRF3\11162000\H962560C.raw

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4 <110> APPLICANT: Hilton, Douglas J.  
5 Alexander, Warren S.  
6 Viney, Elizabeth M.  
7 Wilson, Tracy A.  
8 Richardson, Rachel  
9 Starr, Robyn  
10 Nicholson, Sandra E.  
11 Metcalf, Donald  
12 Nicola, Nicos A.  
14 <120> TITLE OF INVENTION: THERAPEUTIC AND DIAGNOSTIC AGENTS  
16 <130> FILE REFERENCE: Davies Collison Cave  
18 <140> CURRENT APPLICATION NUMBER: 08/962,560C  
19 <141> CURRENT FILING DATE: 1997-10-31  
21 <160> NUMBER OF SEQ ID NOS: 68  
23 <170> SOFTWARE: PatentIn Ver. 2.1  
25 <210> SEQ ID NO: 1  
26 <211> LENGTH: 20  
27 <212> TYPE: DNA  
28 <213> ORGANISM: Artificial Sequence  
30 <220> FEATURE:  
31 <223> OTHER INFORMATION: Description of Artificial Sequence:Primer  
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37 <210> SEQ ID NO: 2  
38 <211> LENGTH: 20  
39 <212> TYPE: DNA  
40 <213> ORGANISM: Artificial Sequence  
42 <220> FEATURE:  
43 <223> OTHER INFORMATION: Description of Artificial Sequence:Primer  
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49 <210> SEQ ID NO: 3  
50 <211> LENGTH: 1235  
51 <212> TYPE: DNA  
52 <213> ORGANISM: Mus musculus  
54 <220> FEATURE:  
55 <221> NAME/KEY: CDS  
56 <222> LOCATION: (161)..(799)  
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61 ggcctgtgcc acccgagcgc ccggctcact gcctctgtct ccccatcag cgcagccccc 120  
63 gacgctatgg cccacccctc cagctggccc ctcgagttag 160  
65 atg gta gca cgc aac cag gtg gca gcc gac aat gcg atc tcc ccg gca 208  
66 Met. Val Ala Arg Asn Gln Val Ala Ala Asp Asn Ala Ile Ser Pro Ala  
67 1 5 10 15  
69 gca gag ccc cga cgg cgg tca gag ccc tcc tcg tcc tcg tct tcg tcc 256  
70 Ala Glu Pro Arg Arg Arg Ser Glu Pro Ser Ser Ser Ser Ser Ser
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## RAW SEQUENCE LISTING

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Input Set : A:\10976.asc

Output Set: N:\CRF3\11162000\H962560C.raw

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73  lcg cca gcg gcc ccc gtg cgt ccc cgg ccc tgc ccg gcg gtc cca gcc 304
74  Ser Pro Ala Ala Pro Val Arg Pro Arg Pro Cys Pro Ala Val Pro Ala
75          35          40          45
77  cca gcc cct ggc gac act cac ttc cgc acc ttc cgc tcc cac tcc gat 352
78  Pro Ala Pro Gly Asp Thr His Phe Arg Thr Phe Arg Ser His Ser Asp
79          50          55          60
81  tac cgg cgc atc acg cgg acc agc gcg ctc ctg gac gcc tgc ggc ttc 400
82  Tyr Arg Arg Ile Thr Arg Thr Ser Ala Leu Leu Asp Ala Cys Gly Phe
83  65          70          75          80
85  tat tgg gga ccc ctg agc gtg cac ggg gcg cac gag cgg ctg cgt gcc 448
86  Tyr Trp Gly Pro Leu Ser Val His Gly Ala His Glu Arg Leu Arg Ala
87          85          90          95
89  gag ccc gtg ggc acc ttc ttg gtg cgc gac agt cgt caa cgg aac tgc 496
90  Glu Pro Val Gly Thr Phe Leu Val Arg Asp Ser Arg Glu Arg Asn Cys
91          100          105          110
93  ttc ttc gcg ctc agc gtg aag atg gct tgc ggc ccc acg agc atc cgc 544
94  Phe Phe Ala Leu Ser Val Lys Met Ala Ser Gly Pro Thr Ser Ile Arg
95          115          120          125
97  gtg cac ttc cag gcc ggc cgc ttc cac ttg gac ggc agc cgc gag acc 592
98  Val His Phe Gln Ala Gly Arg Phe His Leu Asp Gly Ser Arg Glu Thr
99          130          135          140
101 ttc gac tgc ctt ttc gag ctg ctg gag cac tac gtg gcg gcg ccg cgc 640
102 Phe Asp Cys Leu Phe Glu Leu Leu Glu His Tyr Val Ala Ala Pro Arg
103 145          150          155          160
105 cgc atg ttg ggg gcc ccg ctg cgc cag cgc cgc gtg cgg ccg ctg cag 688
106 Arg Met Leu Gly Ala Pro Leu Arg Gln Arg Arg Val Arg Pro Leu Gln
107          165          170          175
109 gag ctg tgt cgc cag cgc atc gtg gcc gcc gtg ggt cgc gag aac ctg 736
110 Glu Leu Cys Arg Gln Arg Ile Val Ala Ala Val Gly Arg Glu Asn Leu
111          180          185          190
113 gcg cgc atc cct ctt aac ccg gta ctc cgt qac tac ctg agt tcc ttc 784
115 Ala Arg Ile Pro Leu Asn Pro Val Leu Arg Asp Tyr Leu Ser Ser Phe
116          195          200          205
118 ccc ttc cag atc lga ccggctg ccgctgtgcc gcagcattaa gtggggggcgc 836
119 Pro Phe Gln Ile
120          210
122 cttattattt cttattatta attattatta tttttctgga accacgtggg agccctcccc 896
124 gcctgggtcg gagggagtgg ttgtggaggg tgagatgcct cccacttctg gctggagacc 956
126 tcattcccacc tctcaggggt ggggggtgctc cctcctcgtt gctccctccg ggtecccccct 1016
128 ggtttgtagca gctttgtgtct ggggccaggga cctgaattcc actcctacct ctccatgttt 1076
130 acatattccc agtatctttg cacaaccag gggtcgggga gggctctctg cttcattttt 1136
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134 atgaaagttt ttttttaaaa gaaaaaaaaa aaaaaaaaaa 1235
137 <210> SEQ ID NO: 4
138 <211> LENGTH: 212
139 <212> TYPE: PRT
140 <213> ORGANISM: Mus musculus
142 <400> SEQUENCE: 4

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Input Set : A:\10976.asc  
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143 Met Val Ala Arg Asn Gln Val Ala Ala Asp Asn Ala Ile Ser Pro Ala
144 1 5 10 15
146 Ala Glu Pro Arg Arg Arg Ser Glu Pro Ser Ser Ser Ser Ser Ser
147 20 25 30
149 Ser Pro Ala Ala Pro Val Arg Pro Arg Pro Cys Pro Ala Val Pro Ala
150 35 40 45
152 Pro Ala Pro Gly Asp Thr His Phe Arg Thr Phe Arg Ser His Ser Asp
153 50 55 60
155 Tyr Arg Arg Ile Thr Arg Thr Ser Ala Leu Leu Asp Ala Cys Gly Phe
156 65 70 75 80
158 Tyr Trp Gly Pro Leu Ser Val His Gly Ala His Glu Arg Leu Arg Ala
159 85 90 95
161 Glu Pro Val Gly Thr Phe Leu Val Arg Asp Ser Arg Gln Arg Asn Cys
162 100 105 110
164 Phe Phe Ala Leu Ser Val Lys Met Ala Ser Gly Pro Thr Ser Ile Arg
165 115 120 125
167 Val His Phe Gln Ala Gly Arg Phe His Leu Asp Gly Ser Arg Glu Thr
168 130 135 140
171 Phe Asp Cys Leu Phe Glu Leu Leu Glu His Tyr Val Ala Ala Pro Arg
172 145 150 155 160
174 Arg Met Leu Gly Ala Pro Leu Arg Gln Arg Arg Val Arg Pro Leu Gln
175 165 170 175
177 Glu Leu Cys Arg Gln Arg Ile Val Ala Ala Val Gly Arg Glu Asn Leu
178 180 185 190
180 Ala Arg Ile Pro Leu Asn Pro Val Leu Arg Asp Tyr Leu Ser Ser Phe
181 195 200 205
183 Pro Phe Gln Ile
184 210
187 <210> SEQ ID NO: 5
188 <211> LENGTH: 1121
189 <212> TYPE: DNA
190 <213> ORGANISM: Mus musculus
192 <220> FEATURE:
193 <221> NAME/KEY: CDS
194 <222> LOCATION: (223)..(819)
196 <400> SEQUENCE: 5
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199 agaaaaagaa ccagccgctt ccagtcacct cccctccgc caccatttcg gacacctgc 120
201 acactctcgt ttgtgggtac cctgtgactt ccaggcagca cgcgaggtcc actggcccca 180
203 gctcgggcga ccagctgtct gggacgtgtt gactcatctc cc atg acc ctg cgg 234
204 Met Thr Leu Arg
205 1
207 tgc ctg gag ccc tcc ggg aat gga gcg gac agg acg cgg agc cag tgg 282
208 Cys Leu Glu Pro Ser Gly Asn Gly Ala Asp Arg Thr Arg Ser Gln Trp
209 5 10 15 20
211 ggg acc gcg ggg ttg ccg gag gaa cag tcc ccc gag gcg gcg cgt ctg 330
212 Gly Thr Ala Gly Leu Pro Glu Glu Gln Ser Pro Glu Ala Ala Arg Leu
213 25 30 35
215 gcg aaa gcc ctg cgc gag ctc agt caa aca gga tgg tac tgg gga agt 378

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RAW SEQUENCE LISTING      DATE: 11/16/2000  
 PATENT APPLICATION: US/08/962,560C      TIME: 16:31:13

Input Set : A:\10976.asc  
 Output Set: N:\CRF3\11162000\H962560C.raw

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220 Met Thr Val Asn Glu Ala Lys Glu Lys Leu Lys Glu Ala Pro Glu Gly
221      55      60      65
223 act ttc ttg att aga gat agt tcg cat tca gac tac cta cta act ata 474
224 Thr Phe Leu Ile Arg Asp Ser Ser His Ser Asp Tyr Leu Leu Thr Ile
225      70      75      80
227 tcc gtt aag acg tca gct gga ccg act aac ctg cgg att gag tac caa 522
228 Ser Val Lys Thr Ser Ala Gly Pro Thr Asn Leu Arg Ile Glu Tyr Gln
229 85      90      95      100
231 gat ggg aaa ttc aga ttg gat tct atc ata tgt gtc aag tcc aag ctt 570
232 Asp Gly Lys Phe Arg Leu Asp Ser Ile Ile Cys Val Lys Ser Lys Leu
233      105      110      115
235 aaa cag ttt gac aqt gtg gtt cat ctg att gac tac tat gtc cag atg 618
236 Lys Gln Phe Asp Ser Val Val His Leu Ile Asp Tyr Tyr Val Gln Met
237      120      125      130
239 tgc aag gat aaa cgg aca ggc cca gaa gcc cca cgg aat ggg act gtt 666
240 Cys Lys Asp Lys Arg Thr Gly Pro Glu Ala Pro Arg Asn Gly Thr Val
241      135      140      145
243 cac ctg tac ctg acc aaa cct ctg tat aca tca gca ccc act ctg cag 714
244 His Leu Tyr Leu Thr Lys Pro Leu Tyr Thr Ser Ala Pro Thr Leu Gln
245      150      155      160
247 cat ttc tgt cga ctc gcc att aac aaa tgt acc ggt acg atc tgg gga 762
248 His Phe Cys Arg Leu Ala Ile Asn Lys Cys Thr Gly Thr Ile Trp Gly
249 165      170      175      180
251 ctg cct tta cca aca aga cta aaa gat tac ttg gaa gaa tat aaa ttc 810
252 Leu Pro Leu Pro Thr Arg Leu Lys Asp Tyr Leu Glu Glu Tyr Lys Phe
253      185      190      195
255 cag gta taagtatttc tctctctttt tcgttttttt ttaaaaaaaaa aaaaacacat 866
256 Gln Val
258 gctcatata gactatctcc gaatgcagct atgtgaaaga gaaccagag gccctcctct 926
260 ggataactgc gcagaattct ctcttaagga cagttgggct cagtctaaact taaaggtgtg 986
262 aagatgtagc taggtatttt aaagtccccc ttaggtagtt ttagctgaat gatgctttct 1046
264 ttcctatggc tgctcaagat caaatggccc ttttaaatga aacaaaaacaa aacaaaaacaa 1106
266 aaaaaaaaaa aaaaaa 1121
269 <210> SEQ ID NO: 6
270 <211> LENGTH: 198
271 <212> TYPE: PRT
272 <213> ORGANISM: Mus musculus
274 <400> SEQUENCE: 6
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279 Arg Ser Gln Trp Gly Thr Ala Gly Leu Pro Glu Glu Gln Ser Pro Glu
280      20      25      30
283 Ala Ala Arg Leu Ala Lys Ala Leu Arg Glu Leu Ser Gln Thr Gly Trp
284      35      40      45
286 Tyr Trp Gly Ser Met Thr Val Asn Glu Ala Lys Glu Lys Leu Lys Glu
287      50      55      60

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 PATENT APPLICATION: US/08/962,560C  
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 TIME: 16:31:13

Input Set : A:\10976.asc  
 Output Set: N:\CRF3\11162000\H962560C.raw

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289 Ala Pro Glu Gly Thr Phe Leu Ile Arg Asp Ser Ser His Ser Asp Tyr
290 65 70 75 80
292 Leu Leu Thr Ile Ser Val Lys Thr Ser Ala Gly Pro Thr Asn Leu Arg
293 85 90 95
295 Ile Glu Tyr Gln Asp Gly Lys Phe Arg Leu Asp Ser Ile Ile Cys Val
296 100 105 110
298 Lys Ser Lys Leu Lys Gln Phe Asp Ser Val Val His Leu Ile Asp Tyr
299 115 120 125
301 Tyr Val Gln Met Cys Lys Asp Lys Arg Thr Gly Pro Glu Ala Pro Arg
302 130 135 140
304 Asn Gly Thr Val His Leu Tyr Leu Thr Lys Pro Leu Tyr Thr Ser Ala
305 145 150 155 160
307 Pro Thr Leu Gln His Phe Cys Arg Leu Ala Ile Asn Lys Cys Thr Gly
308 165 170 175
310 Thr Ile Trp Gly Leu Pro Leu Pro Thr Arg Leu Lys Asp Tyr Leu Glu
311 180 185 190
313 Glu Tyr Lys Phe Gln Val
314 195
317 <210> SEQ ID NO: 7
318 <211> LENGTH: 2187
319 <212> TYPE: DNA
320 <213> ORGANISM: Mus musculus
322 <220> FEATURE:
323 <221> NAME/KEY: CDS
324 <222> LOCATION: (18)..(695)
326 <400> SEQUENCE: 7
327 cgctggctcc gtgcgcc atg gtc acc cac agc aag ttt ccc gcc gcc ggg 50
328 Met Val Thr His Ser Lys Phe Pro Ala Ala Gly
329 1 5 10
331 atg agc cgc ccc ctg gac acc agc ctg cgc ctc aag acc ttc agc tcc 98
332 Met Ser Arg Pro Leu Asp Thr Ser Leu Arg Leu Lys Thr Phe Ser Ser
333 15 20 25
335 aaa agc gag tac cag ctg gtg gtg aac gcc gtg cgc aag ctg cag gag 146
336 Lys Ser Glu Tyr Gln Leu Val Val Asn Ala Val Arg Lys Leu Gln Glu
337 30 35 40
339 agc gga ttc tac tgg agc gcc gtg acc ggc ggc gag gcg aac ctg ctg 194
340 Ser Gly Phe Tyr Trp Ser Ala Val Thr Gly Gly Glu Ala Asn Leu Leu
341 45 50 55
343 ctg agc gcc gag ccc gcg ggc acc ttt ctt atc cgc gac agc tcg gac 242
344 Leu Ser Ala Glu Pro Ala Gly Thr Phe Leu Ile Arg Asp Ser Ser Asp
345 60 65 70 75
347 cag cgc cac ttc ttc acg ttg agc gtc aag acc cag tcg ggg acc aag 290
348 Gln Arg His Phe Phe Thr Leu Ser Val Lys Thr Gln Ser Gly Thr Lys
349 80 85 90
351 aac cta cgc atc cag tgt gag ggg ggc agc ttt tcg ctg cag agt gac 338
352 Asn Leu Arg Ile Gln Cys Glu Gly Gly Ser Phe Ser Leu Gln Ser Asp
353 95 100 105
355 ccc cga agc acg cag cca gtt ccc cgc ttc gac tgt gta ctc aag ctg 386
356 Pro Arg Ser Thr Gln Pro Val Pro Arg Phe Asp Cys Val Leu Lys Leu

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PSI:

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

## VERIFICATION SUMMARY

PATENT APPLICATION: US/08/962,560C

DATE: 11/16/2000

TIME: 16:31:14

Input Set : A:\10976.asc

Output Set: N:\CRF3\11162000\H962560C.raw

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L:1137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17  
L:1237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:1264 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:1279 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:1730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24  
L:1774 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25  
L:1915 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28  
L:1919 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28  
L:2523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41  
L:2678 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44  
L:3416 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51  
L:3419 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51  
L:3422 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51  
L:3425 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51  
L:3428 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51  
L:3431 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51  
L:3434 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51  
L:3437 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51